

Application Serial No. 10/817,221
Amendment dated October 16, 2006
Reply to Office Action dated July 17, 2006

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A fuel manifold for the direct injection of fuel into an internal combustion engine comprising a head provided with a number of cylinders, a number of injectors, each of which is connected to the fuel manifold and is adapted directly to inject the fuel into a respective cylinder, and an intake manifold which is connected to the head in order to supply fresh air to the cylinders,

wherein the fuel manifold being characterised in that it is formed by a single monolithic body which is made [[from]] of thixotropic aluminum by means of a pressure die casting process and comprises a supply duct adapted to distribute the fuel under pressure to the injectors, and a flange disposed laterally to the supply duct, the flange having a plurality of through holes in order to be secured by respective screws to the head of the engine and comprising a number of coupling members, each of which is adapted to bring a respective cylinder into communication with the intake manifold;

the supply duct includes a main cylindrical tubular channel having two opposite open ends, one of which is used to supply the fuel under pressure and the other is closed by a screw cap;

in the vicinity of the end closed by the screw cap, the main cylindrical tubular channel has a first opening adapted to receive a pressure regulator and a second opening adapted to receive a pressure sensor.

Claim 2 (currently amended): A fuel manifold as claimed in claim 1, in which the flange comprises a substantially plane plate which extends laterally to the supply duct from a median portion of this supply duct, each coupling member comprising a tubular body which rises from the plate perpendicularly with respect to the plane in which [[this]] said plate lies.

Claim 3 (currently amended): A fuel manifold as claimed in claim 2, in which a lower surface of the plate is plane planar and has a relatively very small surface roughness so that it can be coupled in a leak-tight manner with a corresponding upper surface of the head.

Application Serial No. 10/817,221
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Claim 4 (currently amended): A fuel manifold as claimed in claim 2, in which a series of reinforcing ribs are provided and are disposed perpendicularly with respect to the plane in which the plate lies and involve are on both the plate and the supply duct.

Claim 5 (original): A fuel manifold as claimed in claim 4, in which the flange has a series of raised zones, via each of which a respective through hole is provided for the passage of a screw for connection to the head of the engine.

Claim 6 (original): A fuel manifold as claimed in claim 5, in which some reinforcing ribs start from the raised zones.

Claim 7 (original): A fuel manifold as claimed in claim 4, in which some reinforcing ribs start from the tubular bodies.

Claim 8 (currently amended): A fuel manifold as claimed in claim 1, in which the supply duct is formed by a main cylindrical tubular channel from which a series of further secondary cylindrical tubular channels, disposed perpendicularly with respect to the main cylindrical tubular duct, lead, each said secondary cylindrical tubular channel being adapted to house a respective injector in a leak-tight manner.

Claims 9 and 10 (cancelled)